Remarks

Applicant respectfully requests reconsideration of this application as amended.

Claims 1-3, 6-7, 9-12, 15-16, 18-21, 24-25, and 27 have been amended. No claims have

been cancelled or added. Therefore, claims 1-27 are presented for examination.

Double Patenting

Claims 1 and 6-8 stand provisionally rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claims 1-2, and 9-11 of

copending Application No. 10/607,770 in view of Ooe et al. (U.S. Patent No. 5,737,743).

Applicant submits a terminal disclaimer, enclosed herewith, as recommended by the

Examiner, to overcome the double patenting rejection.

35 U.S.C. §103(a) Rejection

Claims 1-2, 6-7, 10-12, 15-16, 19-21, and 24-25 stand rejected under 35 U.S.C.

§103(a) as being unpatentable over Jacobson et al. (U.S. Pub. No. 2004/0068636) which

incorporates Jacobson et al. (U.S. Patent No. 5,392, 244), hereinafter Jacobson 2, by

reference and Ooe et al. (U.S. Patent No. 5,737,743). Applicant submits that the present

claims are patentable over Jacobson in view of Ooe.

Jacobson discloses a virtual storage system for over-committing a virtual RAID

system. The virtual storage system includes a virtual storage space, a physical storage space,

a mapping system configured to associated a plurality of addresses of the virtual storage

space with respective addresses of the physical storage space and a controller configured to

automatically remove a portion of the mapping system according to a prioritization protocol

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which specifies removal of portions of the mapping system according to an order. (Jacobson at Abstract.)

Ooe discloses a system to enable physical disk block spaces allocated in a file to be combined in a specific area on a disk. The system also reduces the number of head searches and the latency speed for a disk during file access. The system further enables one logical block in a file to correspond to an arbitrary number of sequential empty physical disk block spaces and to significantly reduce the number of head searches and the latency speed for a disk during file access. Finally, the system provides a mechanism to separate free physical disk block space area into an area used for a small number of sequential empty physical disk block spaces and an area used for a large number of sequential empty physical disk block spaces, and allocated these areas to different parts of the disk. (Ooe at col. 1, ll. 52-67.)

Claim 1, as amended, recites:

A method comprising:
    creating a virtual data storage parcel, the virtual data storage parcel including a number of virtual logical data blocks of a first size;
    creating a physical data storage parcel, the physical data storage parcel including a number of physical data storage blocks of a second size that is smaller than the first size; and
    mapping the virtual logical data blocks in the virtual data storage parcel to the physical data storage blocks in the physical data storage parcel;
    <u>wherein the larger size of the virtual logical data blocks provides additional storage space for data of one or more types including at least one of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data.</u>

Applicant submits that Jacobson does not disclose or suggest <u>the larger size of the virtual logical data blocks provides additional storage space for data of one or more types including at least one of error correction code data, cyclic redundancy check data, checksum</u>

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data, timestamp data and cache history data, as recited by claim 1. Applicant can find no disclosure or suggestion of such a feature anywhere in Jacobson.

Applicant further submits that Ooe does not disclose or suggest <u>the larger size of the virtual logical data blocks provides additional storage space for data of one or more types including at least one of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data</u>. Applicant can find no disclosure or suggestion of the cited feature of claim 1 anywhere in Ooe.

As neither Jacobson nor Ooe individually disclose or suggest <u>the larger size of the virtual logical data blocks provides additional storage space for data of one or more types including at least one of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data</u>, any combination of Jacobson and Ooe also does not disclose or suggest such a feature. Therefore, claim 1, as well as its dependent claims, is patentable over Jacobson in view of Ooe.

Independent claims 10 and 19 also recite, in part, <u>the larger size of the virtual logical data blocks provides additional storage space for data of one or more types including at least one of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data</u>. As discussed above, Jacobson in view of Ooe does not disclose or suggest such a feature. Therefore, claims 10 and 19, as well as their respective dependent claims, are patentable over Jacobson in view of Ooe for the reasons discussed above with respect to claim 1.

Claims 4, 13, and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jacobson et al. incorporating Jacobson 2, Ooe et al. and Peterson et al. (U.S. Patent No.

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5,911,150). Applicant submits that the present claims are patentable over Jacobson and Ooe, even in view of Peterson. Claims 4, 13, and 22 depend from independent claims 1, 10, and 19. As discussed above, claims 1, 10, and 19 are patentable over Jacobson in view of Ooe. Peterson does not remedy the defects of Jacobson and Ooe in light of claims 1, 10, and 19. Therefore, claim 4, 13, and 22 are patentable over Jacobson and Ooe in view of Peterson.

Claims 5, 14, and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jacobson et al. incorporating Jacobson 2, Ooe et al. and Peterson et al. as applied to claims 4, 13, and 22 respectively, and further in view of Itoh et al. (U.S. Patent No. 5,966,720). Applicant submits that the present claims are patentable over Jacobson, Ooe, and Peterson, even in view of Itoh. Claims 5, 14, and 23 depend from independent claims 1, 10, and 19. As discussed above, claims 1, 10, and 19 are patentable over Jacobson in view of Ooe. Peterson and Itoh do not remedy the defects of Jacobson and Ooe in light of claims 1, 10, and 19. Therefore, claim 5, 14, and 23 are patentable over Jacobson, Ooe, and Peterson, in view of Itoh.

Claims 8, 17, and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jacobson et al. incorporating Jacobson 2, Ooe et al. and Cleveland et al. (U.S. Patent No. 5,325,370). Applicant submits that the present claims are patentable over Jacobson and Ooe, even in view of Cleveland. Claims 8, 17, and 26 depend from independent claims 1, 10, and 19. As discussed above, claims 1, 10, and 19 are patentable over Jacobson in view of Ooe. Cleveland does not remedy the defects of Jacobson and Ooe in light of claims 1, 10,

and 19. Therefore, claim 8, 17, and 26 are patentable over Jacobson and Ooe in view of Cleveland.

Claims 9, 18, and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Jacobson et al. incorporating Jacobson 2, Ooe et al. and Hill (U.S. Patent No. 5,345,584). Applicant submits that the present claims are patentable over Jacobson and Ooe, even in view of Hill. Claims 9, 18, and 27 depend from independent claims 1, 10, and 19. As discussed above, claims 1, 10, and 19 are patentable over Jacobson in view of Ooe. Hill does not remedy the defects of Jacobson and Ooe in light of claims 1, 10, and 19. Therefore, claim 9, 18, and 27 are patentable over Jacobson and Ooe in view of Hill.

Applicant respectfully submits that the rejections have been overcome and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.
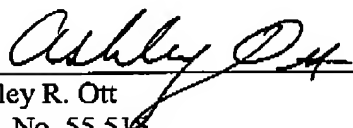
Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: July 12, 2006   _____
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